

In the claims:

1. (CANCELED)

2. (CANCELED)

3. (CANCELED)

4. (CANCELED)

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8. (CANCELED)

9. (CANCELED)

10. (CURRENTLY AMENDED) A process for producing ~~the~~ a ternary metal colloid, said ternary metal colloid ~~being defined in claim 1~~ comprising metal nanoparticles composed of three different metal elements and having a three layer core/shell structure, the process comprising the steps of:

producing a solution in which first metal ions are dispersed in a solvent by dissolving a first metal salt into a first solvent, and producing a first colloid solution by reducing the first metal ions;

providing first metal nanoparticles in the first colloid solution with an activity as a reduction catalyst;

producing a second metal salt solution by dissolving a second metal salt into a second solvent, and mixing the first metal nanoparticles with the second metal salt solution and reducing second metal ions to form a binary colloid solution;

providing second metal nanoparticles in the binary colloid solution with an activity as a reduction catalyst; and

producing a third metal salt solution by dissolving a third metal salt into a third solvent, and mixing the second metal nanoparticles with the third metal salt solution and reducing third metal ions.

11. (CURRENTLY AMENDED) A process for producing the ternary metal colloid, said ternary metal colloid ~~being defined in claim 1~~ comprising metal nanoparticles composed of three different metal elements and having a three layer core/shell structure, the process, comprising the steps of:

producing a first metal salt solution in which two metal ions are dispersed in a solvent by dissolving two metal salts into a first solvent, and producing a colloid solution comprising metal nanoparticles which is composed of two metal elements and has a core/shell structure by reducing the two metal ions in the first metal salt solution;

providing the metal nanoparticles in the first colloid solution with an activity as a reduction catalyst; and

producing a second metal salt solution by dissolving one metal salt different from the two metal salts into a second solvent, and mixing the metal nanoparticles with the second metal salt solution and reducing metal ions in the second metal salt solution.

12. (PREVIOUSLY PRESENTED) The process for producing the ternary metal colloid according to claim 10, wherein in the step of providing the nanoparticles in the produced colloid solution with an activity as a reduction catalyst, hydrogen is adsorbed onto the nanoparticles.

13. (PREVIOUSLY PRESENTED) The process for producing the ternary metal colloid according to claim 11, wherein the metal ions in the metallic salt solution are reduced through adding a reducing agent to the solution.

14. (ORIGINAL) The process for producing the ternary metal colloid according to claim 13, wherein the reducing agent is hydrogen, hydrazine, sodium borohydride ( $\text{NaBH}_4$ ), alcohol, citric acid, N-methylpyrrolidone, dimethylformamide, diethylaminoboron, formaldehyde, visible rays, ultraviolet rays, gamma rays, or ultrasonic waves.

15. (CANCELED)

16. (CANCELED)

17. (CANCELED)

18. (CANCELED)

19. (CANCELED)